Translational Approaches for Studying Neurodevelopmental Disorders Utilizing In Vivo Proton (+H) Magnetic Resonance Spectroscopic Imaging in Rats

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Intrauterine complications have been implicated in the etiology of neuripsychiatirc disorders including schizophrenaia, autism and ADHD. This presentation will describe new translational studies derived from in vivo magnetic resonance imaging of developing and adult brain following moderate perinatal asphyxia (PA). Our findings reveal significant effects of PA on neurometabolic profiles at one-week of age, and significant relationships between early metabolites and later life phenotypes, including behavior and brain morphometry.